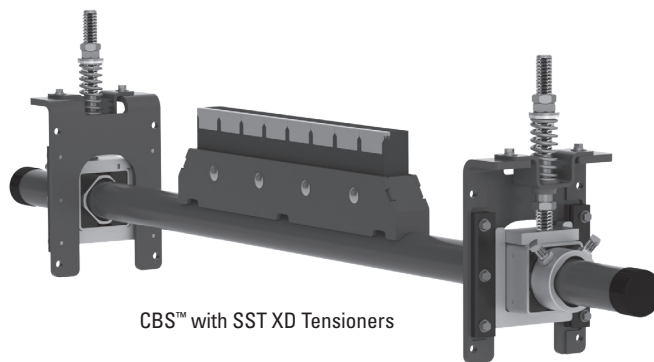


# CBS™ Continuous Blade Secondary™ Belt Cleaner

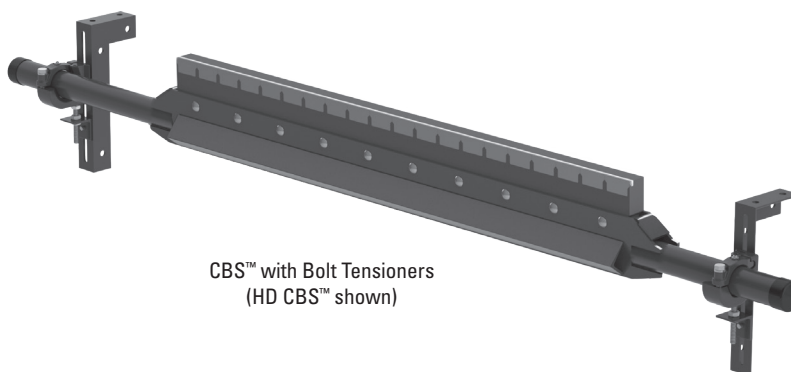
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## Installation, Operation and Maintenance Manual

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CBS™ with SST XD Tensioners



CBS™ with Bolt Tensioners  
(HD CBS™ shown)

# CBS™ Continuous Blade Secondary™ Belt Cleaner

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Serial Number: _____
Purchase Date: _____
Purchased From: _____
Installation Date: _____

Serial number information can be found on the Serial Number Label included in the Information Packet found in the cleaner carton.

This information will be helpful for any future inquiries or questions about belt cleaner replacement parts, specifications or troubleshooting.

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# Section 1 - Important Information

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## 1.1 General Introduction

We at Flexco are very pleased that you have selected a CBS™ Continuous Blade Secondary™ Belt Cleaner for your conveyor system.

This manual will help you to understand the operation of this product and assist you in making it work up to its maximum efficiency over its lifetime of service.

It is essential for safe and efficient operation that the information and guidelines presented be properly understood and implemented. This manual will provide safety precautions, installation instructions, maintenance procedures and troubleshooting tips.

If, however, you have any questions or problems that are not covered, please contact your field representative or our Customer Service Department.

**Visit [www.flexco.com](http://www.flexco.com) for other Flexco locations and products.**

Please read this manual thoroughly and pass it on to any others who will be directly responsible for installation, operation and maintenance of this cleaner. While we have tried to make the installation and service tasks as easy and simple as possible, **it does however require correct installation and regular inspections and adjustments to maintain top working condition.**

## 1.2 User Benefits

Correct installation and regular maintenance will provide the following benefits for your operation:

- Reduced conveyor downtime
- Reduced man-hour labor
- Lower maintenance budget costs
- Increased service life for the belt cleaner and other conveyor components

## 1.3 Service Option

The CBS™ Continuous Blade Secondary™ Belt Cleaner is designed to be easily installed and serviced by your on-site personnel. However, if you would prefer complete turn-key factory service, please contact your local Flexco Field Representative.

## Section 2 - Safety Considerations and Precautions

---

Before installing and operating the CBS™ Continuous Blade Secondary™ Belt Cleaner, it is important to review and understand the following safety information.

There are set-up, maintenance and operational activities involving both **stationary** and **operating** conveyors. Each case has a safety protocol.

---

### 2.1 Stationary Conveyors

The following activities are performed on stationary conveyors:

- Installation
- Blade replacement
- Repairs
- Tension adjustments
- Cleaning

#### **DANGER**

It is imperative that OSHA/MSHA Lockout/Tagout (LOTO) regulations, 29 CFR 1910.147, be followed before undertaking the preceding activities. Failure to use LOTO exposes workers to uncontrolled behavior of the belt cleaner caused by movement of the conveyor belt. Severe injury or death can result.

##### **Before working:**

- Lockout/Tagout the conveyor power source
- Disengage any takeups
- Clear the conveyor belt or clamp securely in place

#### **WARNING**

##### **Use Personal Protective Equipment (PPE):**

- Safety eyewear
- Hardhats
- Safety footwear

Close quarters, springs and heavy components create a worksite that compromises a worker's eyes, feet and skull. PPE must be worn to control the foreseeable hazards associated with conveyor belt cleaners. Serious injuries can be avoided.

### 2.2 Operating Conveyors

There are two routine tasks that must be performed while the conveyor is running:

- Inspection of the cleaning performance
- Dynamic troubleshooting

#### **DANGER**

Every belt cleaner is an in-running nip hazard. Never touch or prod an operating cleaner. Cleaner hazards cause instantaneous amputation and entrapment.

#### **WARNING**

Belt cleaners can become projectile hazards. Stay as far from the cleaner as practical and use safety eyewear and headgear. Missiles can inflict serious injury.

#### **WARNING**

Never adjust anything on an operating cleaner. Unforseeable belt projections and tears can catch on cleaners and cause violent movements of the cleaner structure. Flailing hardware can cause serious injury or death.

## Section 3 - Pre-installation Checks and Options

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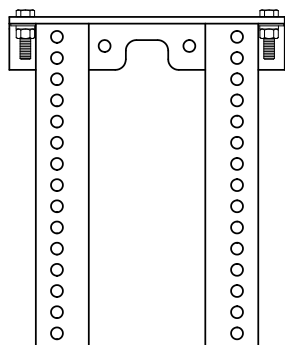
### 3.1 Checklist

- Check that the cleaner size is correct for the beltline width.
- Check the belt cleaner carton and make sure all the parts are included.
- Review the “Tools Needed” list on the top of the installation instructions.
- Check the conveyor site:
  - Will the cleaner be installed on a chute?
  - Is the install on an open head pulley requiring mounting structure?  
(see 3.2 - Optional Installation Accessories)

## Section 3 - Pre-installation Checks and Options

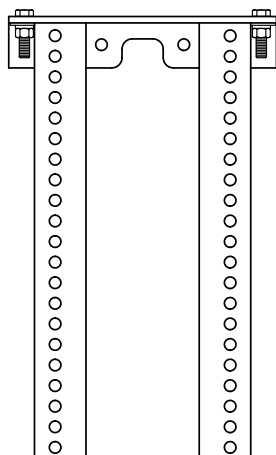
### 3.2 Optional Installation Accessories

Versatile, adjustable brackets that can be mounted on the conveyor structure so the CBS™ Continuous Blade Secondary™ Belt Cleaner can be quickly and easily bolted into place. Pole extenders are also available for wide, non-standard conveyor structures.



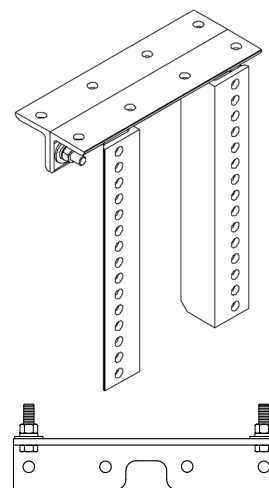
**SST Standard  
Mounting Bracket Kit  
(for SST XD Tensioner)**  
(Item Code: 76071)

- For most secondary cleaner installs.
- 325 x 388 mm (13 x 15-1/2")



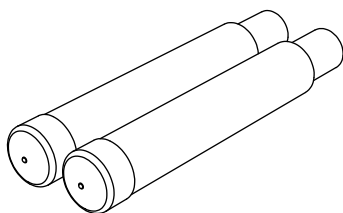
**SST Long  
Mounting Bracket Kit  
(for SST XD Tensioner)**  
(Item Code: 76072)

- For installations that require extra length legs.
- 325 x 538 mm (13 x 21-1/2")



**SST Optional Top Angle Kit  
(for SST XD Tensioner)**  
(Item Code: 76073)

- Used with both standard and long mounting bracket kits for additional mounting options.
- 325 mm (13")



**Pole Extender Kit  
(incl. 2 pole extenders)**  
(Item Code: 76024)

- For cleaner sizes 1800 mm (72") and larger
- Provides 750 mm (30") of extended pole length

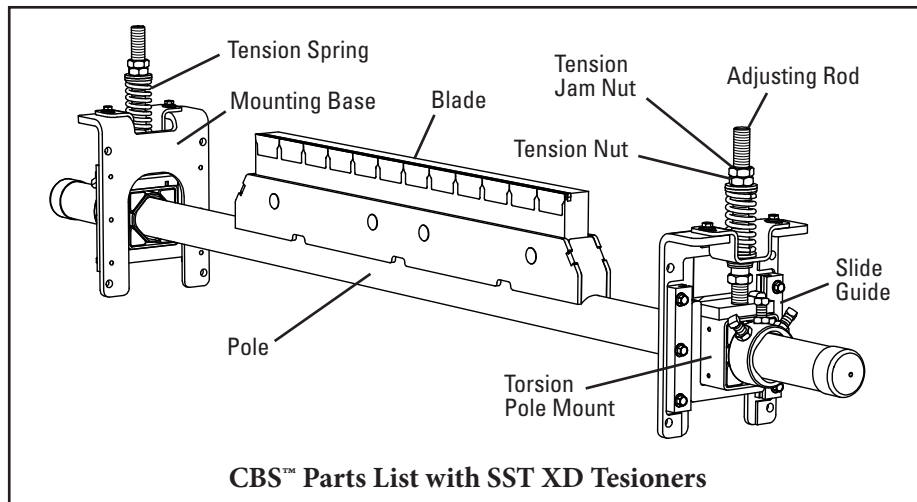
#### Optional Mounting Kits (includes 2 brackets/bars)

DESCRIPTION	ORDERING NUMBER	ITEM CODE	WT. KG
Standard Mounting Bracket Kit *	SSTSMB	76071	15.6
Long Mounting Bracket Kit *	SSTLMB	76072	19.7
Optional Top Angle Kit *	SSTOTA	76073	4.8
Pole Extender Kit	MAPEK	76024	9.9

\*Hardware Included  
Lead time: 1 working day

## Section 4 - Installation Instructions

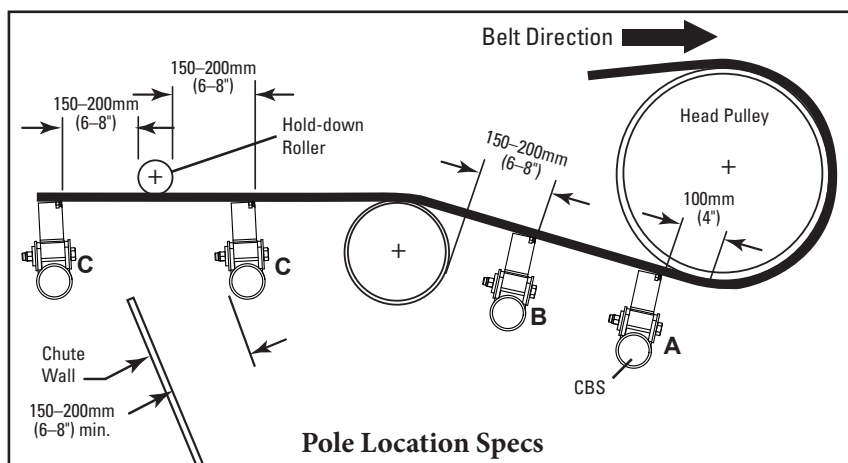
### 4.1 CBS™ - SST XD Tensioner



***Physically lock out and tag the conveyor at the power source before you begin cleaner installation.***

#### **Tools Needed:**

- |   |                            |
|---|----------------------------|
| • 14 mm (9/16") Wrench                                | • Clamps (x2)              |
| • 19 mm (3/4") Wrench                                 | • Torch (as needed)        |
| • 22 mm (7/8") Wrench                                 | • Welder (as needed)       |
| • 35 mm (1-3/8") Wrench                               | • Tape Measure             |
| <b>OR</b> Large Adjustable/<br>Crescent Wrenches (x2) | • Level                    |
|   | • Marking Pen or Soapstone |





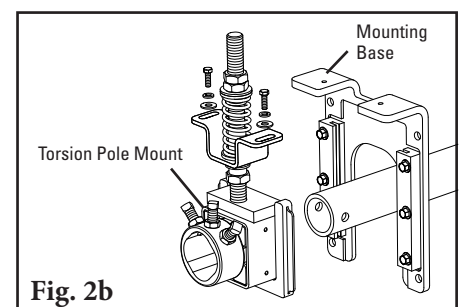
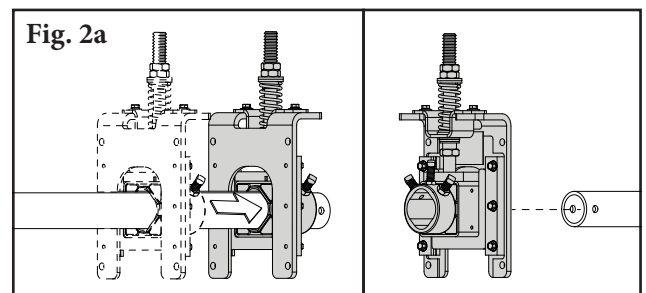
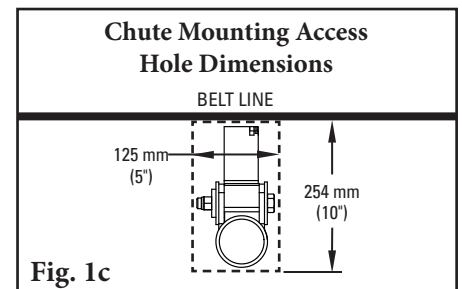
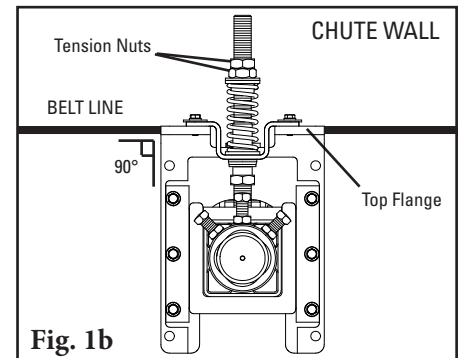
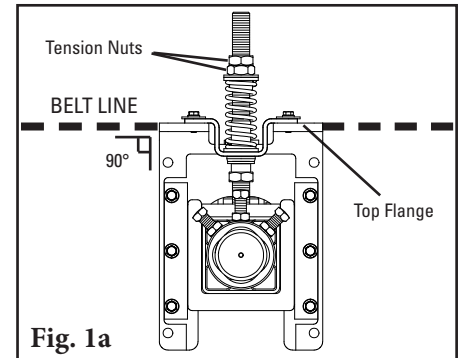
## Section 4 - Installation Instructions

### 4.1 CBS™ - SST XD Tensioner

1. **Install the spring tensioner mounting bases.** (For push-up tensioning refer to additional instructions on page 11.) Clamp one mounting base into position so the top flange of the base is aligned with the belt line (Fig. 1a). Bolt or weld the mounting base in place. Locate and install the mounting base on the opposite side.

**NOTE:** For chute mounting, a belt location line must be drawn on the chute wall so the mounting base can be aligned with the belt (Fig. 1b). Cut access holes as needed (Fig. 1c).

2. **Install the pole.** Slide the pole into one torsion pole mount as far as needed and locate the other end into the opposite mount (Fig. 2a). If there is not enough space, remove one of the torsion pole mounts from the mounting base, slide the pole through the mounting base and reassemble (Fig. 2b).



## Section 4 - Installation Instructions

### 4.1 CBS™ - SST XD Tensioner

3. **Set the blade angle.** Center the pole/blades on the belt. Rotate the pole until the blade lays back 5° using the setup gauge provided (Fig. 3a). Tighten the three locking bolts on each torsion pole mount to lock the pole in place. Best practice is to first tighten the middle bolt before tightening the outer bolts to ensure everything is secure (Fig. 3b). There should be no blade-to-belt contact while locking the pole in the correct position. If contact occurs, double-check the dimension from Step 1.

**NOTE:** For optimal cleaning performance, it is recommended that mechanical fasteners on the belt be skived.

4. **Set the blade tension.** Loosen the top tension jam nuts on both sides. Turn the tension nuts until the correct spring compression is reached, determined by spring length. See the chart for the correct spring length for your belt width.
5. **Set adjusting rod sleeve.** After setting the blade tension, screw the adjusting rod sleeve(s) into the UHMW bushing until 38 mm (1-1/2") is showing (Fig. 4). Tighten the adjusting rod sleeve jam nut.
6. **Test run the cleaner and inspect the cleaning performance.** If vibration occurs or more cleaning efficiency is desired, increase the blade tension by making 3 mm (1/8") compression adjustments on the tension springs.

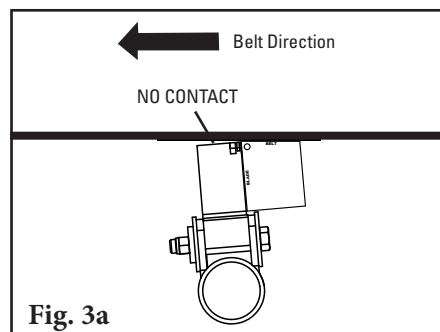


Fig. 3a

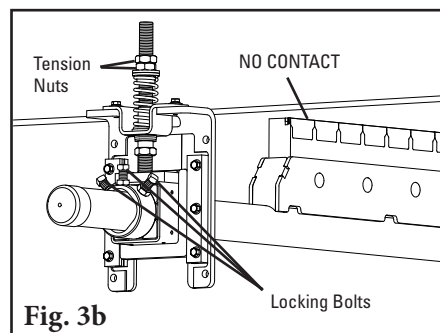


Fig. 3b

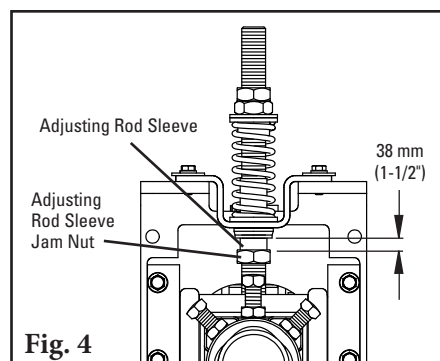
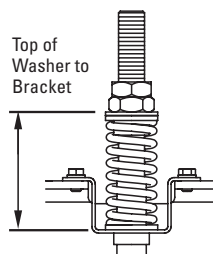


Fig. 4



SST XD Spring Length Chart

Belt Width		White Springs		Silver Springs		Black Springs		Gold Springs	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
450	18	86	3 3/8	102	4	N/A	N/A	N/A	N/A
600	24	79	3 1/8	98	3 7/8	N/A	N/A	N/A	N/A
750	30	73	2 7/8	95	3 3/4	N/A	N/A	N/A	N/A
900	36	N/A	N/A	95	3 3/4	98	3 7/8	N/A	N/A
1050	42	N/A	N/A	92	3 5/8	95	3 3/4	N/A	N/A
1200	48	N/A	N/A	89	3 1/2	92	3 5/8	N/A	N/A
1350	54	N/A	N/A	86	3 3/8	92	3 5/8	95	3 3/4
1500	60	N/A	N/A	83	3 1/4	89	3 1/2	95	3 3/4
1800	72	N/A	N/A	N/A	N/A	86	3 3/8	92	3 5/8
2100	84	N/A	N/A	N/A	N/A	79	3 1/8	89	3 1/2
2400	96	N/A	N/A	N/A	N/A	N/A	N/A	86	3 3/8

Shading indicates preferred spring option.



## Section 4 - Installation Instructions

### 4.2 CBS™ - SST XD - Push-up Tensioning

1. **Reconfigure the standard pull-up tensioner to the push-up style.** Remove the 3 tension nuts, flat washer, 2 bushings, spring, sleeve and hat bracket; reassemble (Fig. 1) with 2 tension nuts, flat washer, 2 bushings, spring and hat bracket on upper end of adjusting rod. Add the 3rd tension nut to bottom of adjusting rod, this will act as a lock for the metal sleeve.
2. **Install the tensioner mounting bases.** Mount the bases to the structure or chute so that the tops of the base legs are 83 mm (3-1/4") below the belt (Fig. 2).
3. **Install the cleaner pole and set the blade angle.** Follow the installation steps from the cleaner instructions on page 10.

**NOTE:** Be sure the lock bolts on the torsion pole mount have been securely tightened to lock the pole in place before moving to Step 4.

4. **Set the blade tension.** First, remove the bottom tension nut and washer from the adjusting rod. Next, turn the two upper tension nuts until the spring is compressed to the length shown on the Spring Length Chart below. Then tighten the two tension nuts together to prevent loosening.
5. **Replace the sleeve.** Position the sleeve over the adjusting rod and turn it until it is in the middle of the bushing. Replace the bottom tension nut and tighten until it locks the sleeve in place (Fig. 2).

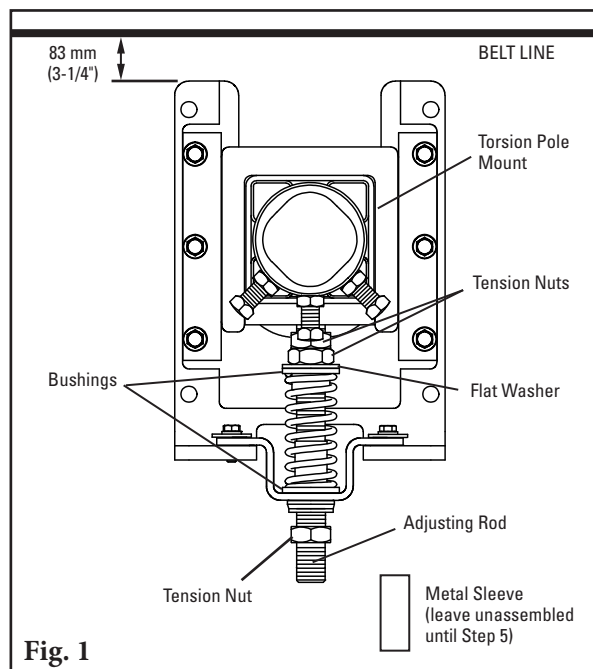


Fig. 1

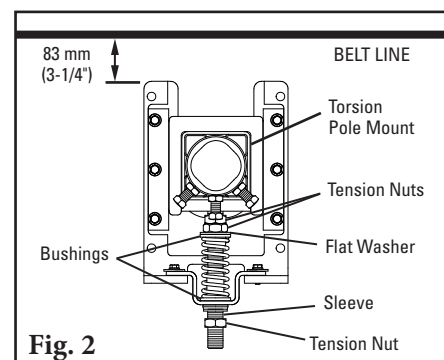
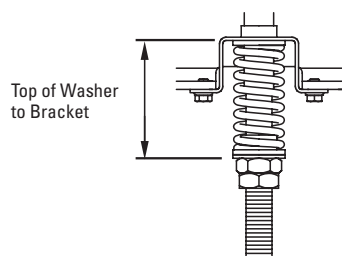


Fig. 2



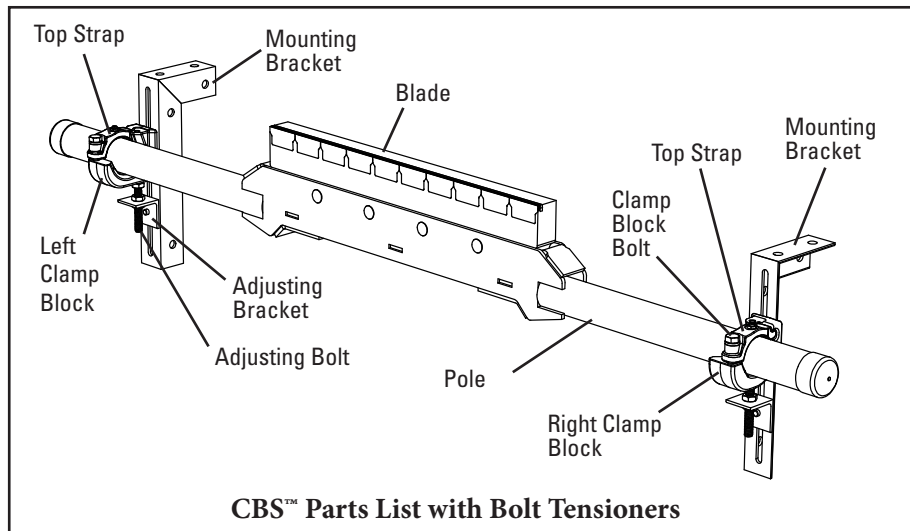
SST XD Spring Length Chart

Belt Width		White Springs		Silver Springs		Black Springs		Gold Springs	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
450	18	86	3 3/8	102	4	N/A	N/A	N/A	N/A
600	24	79	3 1/8	98	3 7/8	N/A	N/A	N/A	N/A
750	30	73	2 7/8	95	3 3/4	N/A	N/A	N/A	N/A
900	36	N/A	N/A	95	3 3/4	98	3 7/8	N/A	N/A
1050	42	N/A	N/A	92	3 5/8	95	3 3/4	N/A	N/A
1200	48	N/A	N/A	89	3 1/2	92	3 5/8	N/A	N/A
1350	54	N/A	N/A	86	3 3/8	92	3 5/8	95	3 3/4
1500	60	N/A	N/A	83	3 1/4	89	3 1/2	95	3 3/4
1800	72	N/A	N/A	N/A	N/A	86	3 3/8	92	3 5/8
2100	84	N/A	N/A	N/A	N/A	79	3 1/8	89	3 1/2
2400	96	N/A	N/A	N/A	N/A	N/A	N/A	86	3 3/8

Shading indicates preferred spring option.

## Section 4 - Installation Instructions

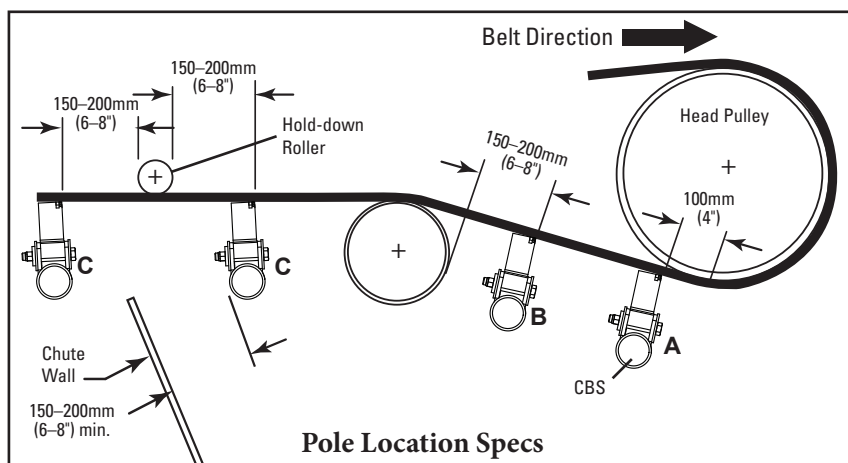
### 4.3 CBS™ - Bolt Tensioner



***Physically lock out and tag the conveyor at the power source before you begin cleaner installation.***

#### Tools Needed:

- 14 mm (9/16") Wrench
- 19 mm (3/4") Wrench
- 22 mm (7/8") Wrench
- 35 mm (1-3/8") Wrench
- OR Large Adjustable/Crescent Wrenches (x2)
- Clamps (x2)
- Torch (as needed)
- Welder (as needed)
- Tape Measure
- Level
- Marking Pen or Soapstone



## Section 4 - Installation Instructions

### 4.3 CBS™ - Bolt Tensioner

1. **Install mounting brackets.** Determine the correct clamp block (left or right) and bracket needed for each side of the conveyor (Fig. 1a). The top strap should be offset away from the belt (you should be able to see the notch for the top strap from the outside of the conveyor).

#### For chute mounting:

A belt location line must first be established. Draw a line on the chute replicating this location. If head pulley and snub pulley are close, it may be necessary to assume an approximate belt line between the two. In the determined location draw a line that is perpendicular to the belt line. Make a mark on this line 180 mm (7") below the belt location line (Fig. 1b).

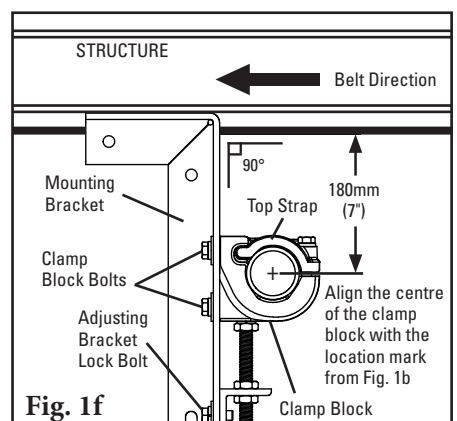
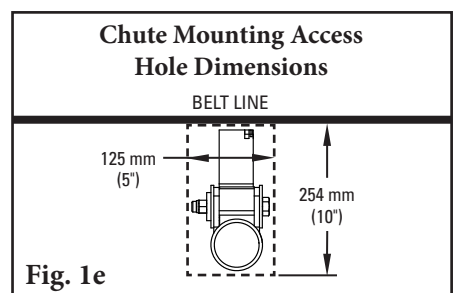
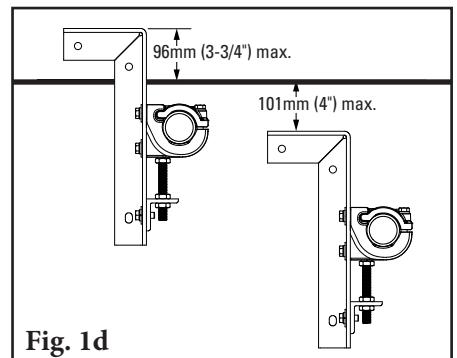
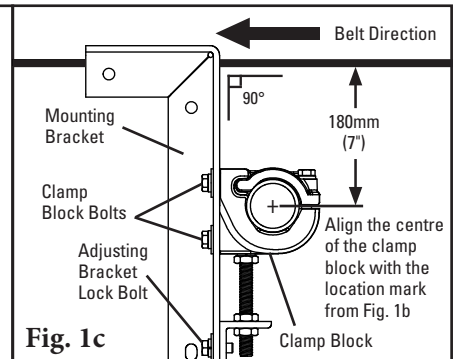
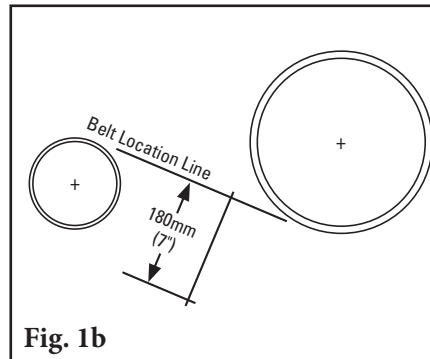
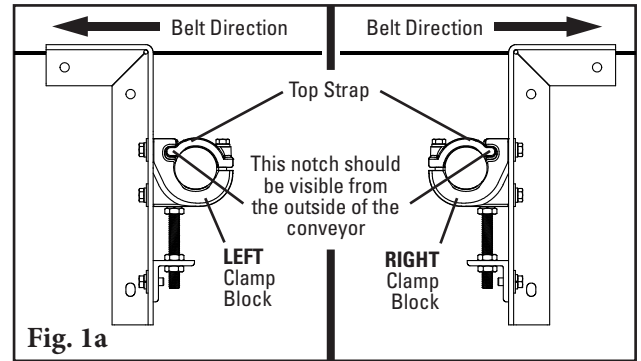
Locate a mounting bracket along the belt location line (Fig. 1b), allowing the centreline of the clamp block to align with the 180 mm (7") mark (Fig. 1c). Mounting brackets must be installed with top of bracket a maximum of 95 mm (3-3/4") above the belt line to 100 mm (4") below the belt line (Fig. 1d.) Bolt or weld the mounting base into place. Locate and install the mounting base on the opposite side.

To move the clamp blocks, if necessary, loosen the clamp block lock bolts and the adjusting bracket lock bolt and move the clamp block to a position where the centre of the hole is 180 mm (7") below the bottom of the belt. Bolt or weld in place. Repeat this step on the opposite side. On one side an access hole may be required (Fig. 1e).

**NOTE:** The mounting brackets must be aligned perpendicular to the belt.

**For structure mounting:** In most applications the standard mounting brackets will have adequate room to fit on the structure with no cutting. Clamp the mounting bracket into position (use 150 mm (7") clamps). Move the clamp block to align the centre of the block with a point 180 mm (7") below the belt (Fig. 1f). To move the clamp blocks, if necessary, loosen the clamp block lock bolts and the adjusting bracket lock bolt and turn the adjusting bolt jam nuts. The bracket can now be bolted or welded in place. Locate and install bracket on the opposite side of belt in alignment with the first bracket.

**NOTE:** The brackets must be aligned perpendicular to the belt.



## Section 4 - Installation Instructions

### 4.3 CBS™ - Bolt Tensioner

2. **Choose the tensioner position.** The tensioner is shipped mounted in the push-up position. Depending upon the space constraints of the installation, the tensioner can optionally be mounted in a pull-up position. To do this, loosen the threaded rod lock nut, unscrew the threaded rod and remove adjusting bracket lock bolt. Then move the adjusting bracket and threaded rod to the top of the clamp blocks (Fig. 2) and tighten threaded rod lock nut.
3. **Install the pole.** Remove the clamp block top strap on the access side of the conveyor, and on the opposite side loosen the clamp block bolt. Slide the pole across and into the loosened clamp block, then place the near end of pole in bottom section of clamp block (Fig. 3). Replace the top strap on the clamp block, centre the blades on the belt and tighten both clamp block bolts finger tight.
4. **Set the blade angle.** Center the pole/blades on the belt. Rotate the pole until the blade lays back 5° using the setup gauge provided (Fig. 3). Lock the pole in place by tightening the clamp block bolts equally.

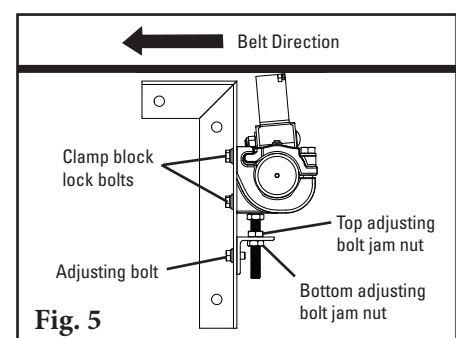
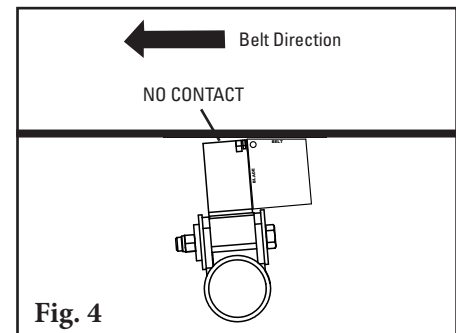
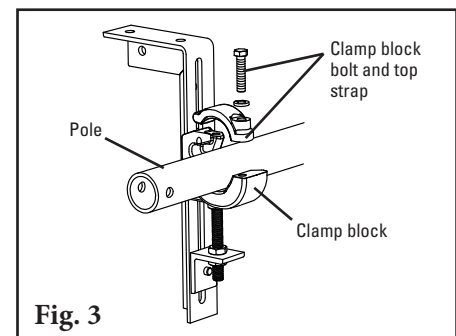
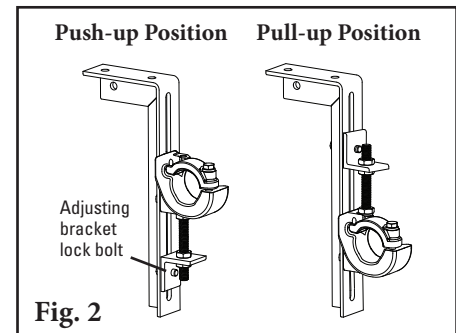
**NOTE:** Make sure there is NO tip-to-belt contact while making this alignment. If contact occurs, lower the pole by loosening the clamp block lock bolts and raising the top adjusting bolt jam nut (Fig. 4).

**NOTE:** For optimal cleaning performance, it is recommended that mechanical fasteners on the belt be skived.

5. **Set the blade tension.** With all clamp block lock bolts slightly loosened, back down the bottom adjusting bolt jam nut 4-5 turns on both sides (Fig. 4). Turn the top adjusting bolt jam nuts down until light contact is made between the tips and belt across the entire width of the cleaner. Give an additional 1 turn to both top adjusting bolt jam nuts and tighten both bottom adjusting bolt jam nuts. Tighten all clamp block lock bolts. Double check that all bolts and nuts on the cleaner are tight.

#### Test run the cleaner and inspect its performance.

If vibration occurs or more cleaning efficiency is desired, increase the tip tension by making a 1/4 turn adjustment on each adjusting bolt.



## Section 5 - Pre-Operation Checklist and Testing

---

### 5.1 Pre-Op Checklist

- Recheck that all fasteners are tightened properly.
- Add pole caps.
- Apply all supplied labels to the cleaner.
- Check the blade location on the belt.
- Be sure that all installation materials and tools have been removed from the belt and the conveyor area.

### 5.2 Test Run the Conveyor

- Run the conveyor for at least 15 minutes and inspect the cleaning performance.
- Check the tensioner spring for recommended length (proper tensioning).
- Make adjustments as necessary.

**NOTE:** Observing the cleaner when it is running and performing properly will help to detect problems or when adjustments are needed later.



## Section 6 - Maintenance

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Flexco belt cleaners are designed to operate with minimum maintenance. However, to maintain superior performance some service is required. When the cleaner is installed a regular maintenance program should be set up. This program will ensure that the cleaner operates at optimal efficiency and problems can be identified and fixed before the cleaner stops working.

All safety procedures for inspection of equipment (stationary or operating) must be observed. The CBS™ Continuous Blade Secondary™ Belt Cleaner operates at the discharge end of the conveyor and is in direct contact with the moving belt. Only visual observations can be made while the belt is running. Service tasks can be done only with the conveyor stopped and by observing the correct lockout/tagout procedures.

### 6.1 New Installation Inspection

After the new cleaner has run for a few days a visual inspection should be made to ensure the cleaner is performing properly. Make adjustments as needed.

### 6.2 Routine Visual Inspection (every 2-4 weeks)

A visual inspection of the cleaner and belt should look for:

- If spring length is the correct length for optimal tensioning
- If belt looks clean or if there are areas that are dirty
- If blade is worn out and needs to be replaced
- If there is damage to the blade or other cleaner components
- If fugitive material is built up on cleaner or in the transfer area
- If there is cover damage to the belt
- If there is vibration or bouncing of the cleaner on the belt
- If a snub pulley is used, a check should be made for material buildup on the pulley
- Significant signs of carryback

If any of the above conditions exist, a determination should be made on when the conveyor can be stopped for cleaner maintenance.

### 6.3 Routine Physical Inspection (every 6-8 weeks)

When the conveyor is not in operation and properly locked and tagged out, a physical inspection of the cleaner to perform the following tasks:

- Clean material buildup off of the cleaner blade and pole
- Closely inspect the blade for wear and any damage. Replace if needed.
- Ensure full blade to belt contact
- Inspect the cleaner pole for damage
- Inspect all fasteners for tightness and wear. Tighten or replace as needed.
- Replace any worn or damaged components
- Check the tension of the cleaner blade to the belt. Adjust the tension if necessary using the chart on the cleaner or the ones on page 8 (SST XD spring tensioner).

When maintenance tasks are completed, test run the conveyor to ensure the cleaner is performing properly



## Section 6 - Maintenance

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### 6.4 Maintenance Log

Conveyor Name/No. \_\_\_\_\_

Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

---

Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

## Section 6 - Maintenance

### 6.5 Cleaner Maintenance Checklist

Site: \_\_\_\_\_ Inspected by: \_\_\_\_\_ Date: \_\_\_\_\_

Belt Cleaner: \_\_\_\_\_ Serial Number: \_\_\_\_\_

#### Beltline Information:

Beltline Number: \_\_\_\_\_ Belt Condition: \_\_\_\_\_

Belt Width: ☐ 450mm (18") ☐ 600mm (24") ☐ 750mm (30") ☐ 900mm (36") ☐ 1050mm (42") ☐ 1200mm (48") ☐ 1350mm (54") ☐ 1500mm (60") ☐ 1800mm (72") ☐ 2100mm (84") ☐ 2400mm (96")

Belt Speed: \_\_\_\_\_ fpm Belt Thickness: \_\_\_\_\_

Belt Splice: \_\_\_\_\_ Condition of Splice: \_\_\_\_\_ Number of Splices: \_\_\_\_\_ ☐ Skived ☐ Unskived \*Mechanical fasteners recommended for skived belts.

Material conveyed: \_\_\_\_\_

Days per week run: \_\_\_\_\_ Hours per day run: \_\_\_\_\_

#### Blade Life:

Date blade installed: \_\_\_\_\_ Date blade inspected: \_\_\_\_\_ Estimated blade life: \_\_\_\_\_

Is blade making complete contact with belt? ☐ Yes ☐ No

Blade wear: Left \_\_\_\_\_ Middle \_\_\_\_\_ Right \_\_\_\_\_

Blade condition: ☐ Good ☐ Grooved ☐ Smiled ☐ Not contacting belt ☐ Damaged

Measurement of spring: Required \_\_\_\_\_ Currently \_\_\_\_\_

Was Cleaner Adjusted: ☐ Yes ☐ No

Pole Condition: ☐ Good ☐ Bent ☐ Worn

Lagging: ☐ Side Lag ☐ Ceramic ☐ Rubber ☐ Other ☐ None

Condition of lagging: ☐ Good ☐ Bad ☐ Other: \_\_\_\_\_

Cleaner's Overall Performance: (Rate the following 1 - 5, 1= very poor - 5 = very good)

Appearance: ☐: Comments: \_\_\_\_\_

Location:: ☐: Comments: \_\_\_\_\_

Maintenance:: ☐: Comments: \_\_\_\_\_

Performance:: ☐: Comments: \_\_\_\_\_

Other comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Section 7 - Troubleshooting

Problem	Possible Cause	Possible Solutions
Vibration	Cleaner secure bolts not set	Ensure all locking nuts are tight (Loctite)
	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle with gauge)
	Belt tension too high	Ensure cleaner can conform to belt, or replace with alternate Flexco secondary cleaner
	Belt flap	Introduce hold-down roller to flatten belt
	Cleaner over-tensioned	Ensure cleaner is correctly tensioned
	Cleaner under-tensioned	Ensure cleaner is correctly tensioned
	Nylon bearing worn out or missing	Replace nylon bearing
Material buildup on cleaner	Cleaner not set up correctly	Ensure cleaner set up properly (5° laid back)
	Buildup on chute	Ensure cleaner is not located too close to back of chute, allowing buildup
	Cleaner being overburdened	Introduce Flexco precleaner
	Excessive sticky material	Frequently clean unit of buildup
Damaged belt cover	Cleaner over-tensioned	Ensure cleaner is correctly tensioned
	Cleaner blade damage	Check blade for wear, damage and chips, replace where necessary
	Attack angle not correct	Ensure cleaner set up properly (check tip angle with gauge)
	Material buildup in chute	Frequently clean unit of buildup
Cleaner not conforming to belt	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle with gauge)
	Belt tension too high	Ensure cleaner can conform to belt (introduce hold-down roller), or replace with alternate Flexco secondary cleaner
	Belt flap	Introduce hold-down roller to flatten belt
	Cleaner cannot conform	Ensure cleaner can conform to belt (introduce hold-down roller), or replace with alternate Flexco secondary cleaner
Material passing cleaner	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle with gauge)
	Cleaner tension too low	Ensure cleaner is correctly tensioned
	Cleaner blade worn/damaged	Check blade for wear, damage and chips, replace where necessary
	Cleaner being overburdened	Introduce Flexco precleaner
	Belt flap	Introduce hold-down roller to flatten belt
	Belt worn or grooved	Introduce water spray pole
	Cleaner cannot conform	Ensure cleaner can conform to belt (introduce hold-down roller), or replace with alternate Flexco secondary cleaner
	Blade in backwards	Install blade correctly and set correct tension
Damage to mechanical fastener	Incorrect cleaner blade selection	Change blade type to accommodate fastener style (UC or UF)
	Belt not skived correctly	Spot and redo splice correctly, lowering the profile flush or below belt surface
	Blade angle incorrect	Reset with gauge
Missing material in belt center only	Cupped Belt	Install hold-down roller and reset blade angle with gauge
	Cleaner blade worn/damaged	Check blade for wear, damage and chips, replace where necessary
Missing material on outer edges only	Cupped Belt	Install hold-down roller and reset blade angle with gauge
	Cleaner blade worn/damaged	Check blade for wear, damage and chips, replace where necessary

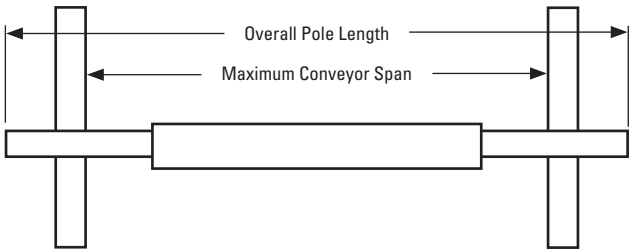
# Section 8 - Specs and CAD Drawings

## 8.1 Specs and Guidelines

### Pole Length Specifications\*

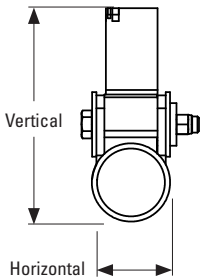
CLEANER SIZE		BELT WIDTH		POLE LENGTH		MAXIMUM CONVEYOR SPAN	
mm	in.	mm	in.	mm	in.	mm	in.
450	18	450	18	1800	72	1550	62
600	24	600	24	1950	78	1700	68
750	30	750	30	2100	84	1850	74
900	36	900	36	2250	90	2000	80
1050	42	1050	42	2400	96	2150	86
1200	48	1200	48	2550	102	2300	92
1350	54	1350	54	2700	108	2450	98
1500	60	1500	60	2850	114	2600	104
1800	72	1800	72	3150	126	2900	116
2100	84	2100	84	3450	138	3200	128
2400	96	2400	96	3750	150	3500	140

\*For special extra long pole length requirements a Pole Extender Kit (#76024) is available that provides 750 mm (30") of extended pole length. See Page 7.  
Pole Diameter - 73 mm (2-7/8")



### Clearance Guidelines for Installation

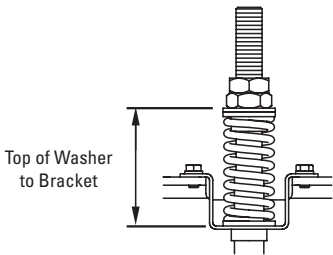
HORIZONTAL CLEARANCE REQUIRED		VERTICAL CLEARANCE REQUIRED	
mm	in.	mm	in.
115	4-1/2	254	10



### SST XD Spring Length Chart

Belt Width		White Springs		Silver Springs		Black Springs		Gold Springs	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
450	18	86	3 3/8	102	4	N/A	N/A	N/A	N/A
600	24	79	3 1/8	98	3 7/8	N/A	N/A	N/A	N/A
750	30	73	2 7/8	95	3 3/4	N/A	N/A	N/A	N/A
900	36	N/A	N/A	95	3 3/4	98	3 7/8	N/A	N/A
1050	42	N/A	N/A	92	3 5/8	95	3 3/4	N/A	N/A
1200	48	N/A	N/A	89	3 1/2	92	3 5/8	N/A	N/A
1350	54	N/A	N/A	86	3 3/8	92	3 5/8	95	3 3/4
1500	60	N/A	N/A	83	3 1/4	89	3 1/2	95	3 3/4
1800	72	N/A	N/A	N/A	N/A	86	3 3/8	92	3 5/8
2100	84	N/A	N/A	N/A	N/A	79	3 1/8	89	3 1/2
2400	96	N/A	N/A	N/A	N/A	N/A	N/A	86	3 3/8

Shading indicates preferred spring option.

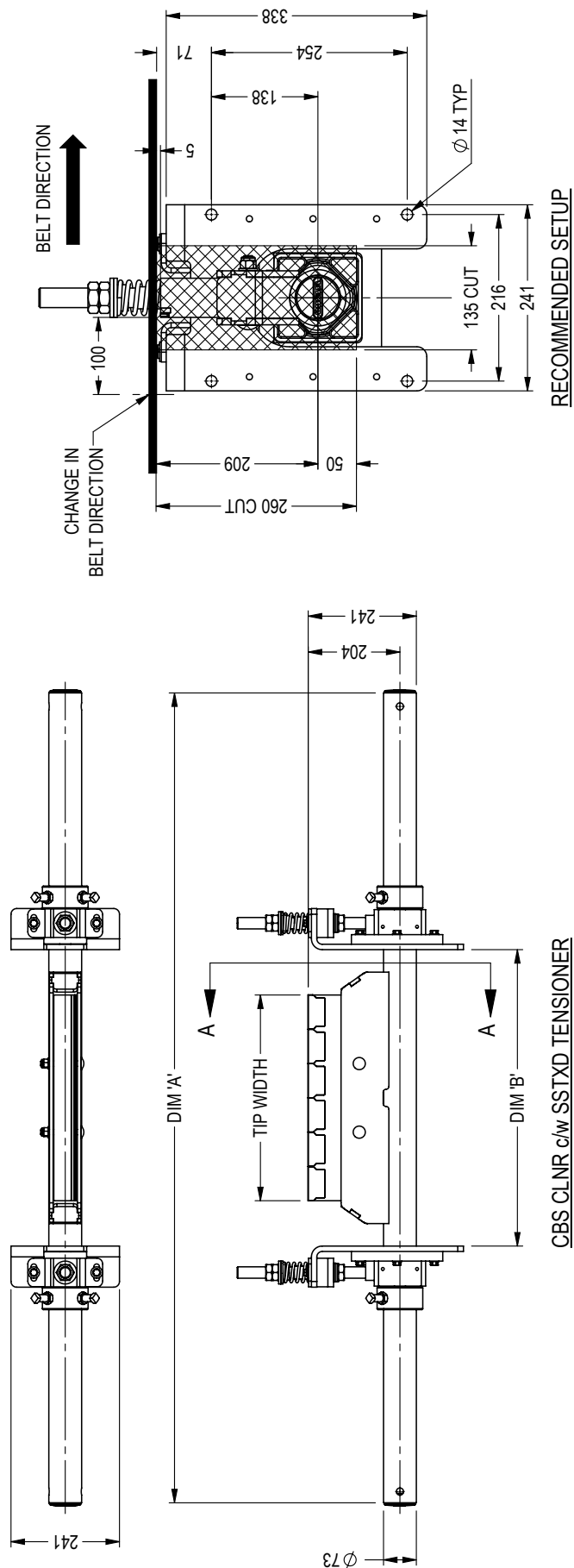


### Specifications:

- Maximum Belt Speed .....4 m/s (800 FPM) for mechanical fasteners  
6 m/s (1200 FPM) for vulcanized belts
- Temperature Rating .....-35 to 82°C (-30 to 180°F)
- Available for Belt Widths .....450 to 2400 mm (18 to 96"). Other sizes available upon request.

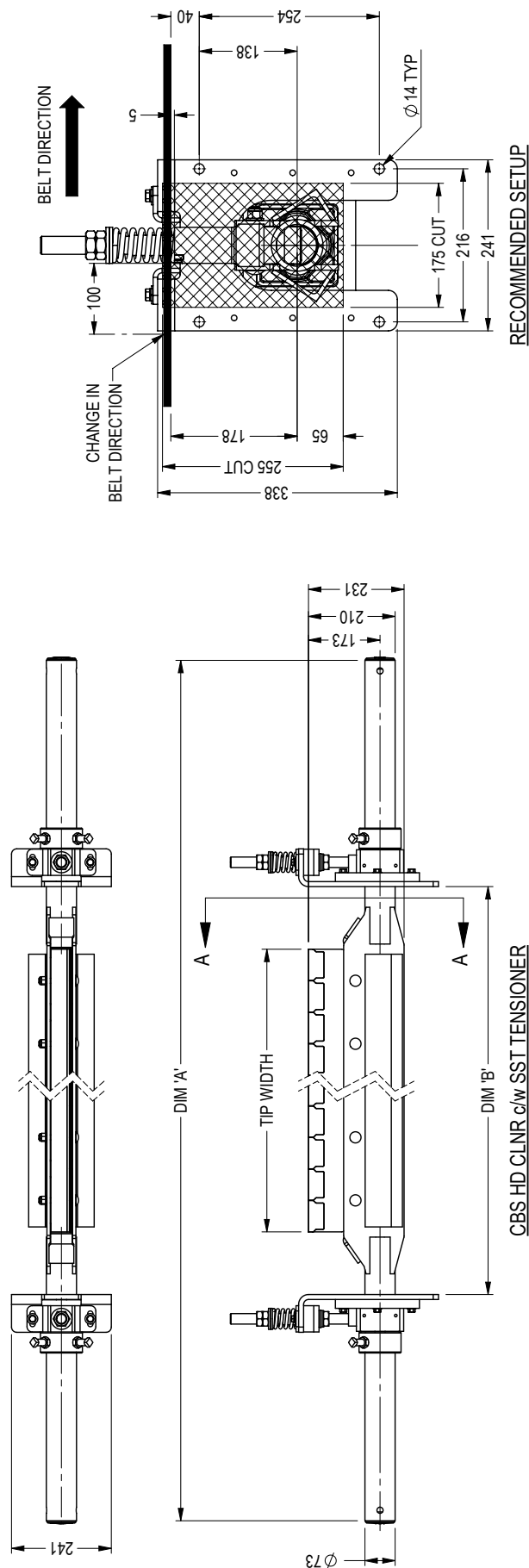
## Section 8 - Specs and CAD Drawings

### 8.2 CAD Drawing - CBS™ - SST XD



## Section 8 - Specs and CAD Drawings

### 8.3 CAD Drawing - CBS™ HD - SST XD



## 8.4 CAD Drawing - CBS™ - Bolt Tensioner



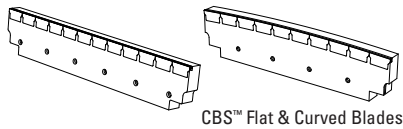
## 8.5 CAD Drawing - CBS™ HD - Bolt Tensioner





## Section 9 - Replacement Parts

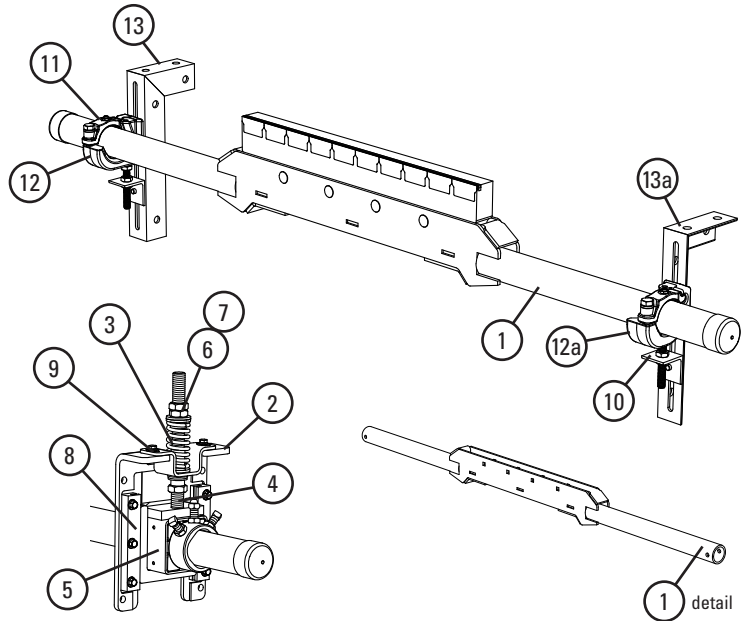
### 9.1 Replacement Parts List



#### Replacement Blades

BELT WIDTH		FLAT BLADE		CURVED BLADE	
		ORDERING NUMBER	ITEM CODE	ORDERING NUMBER	ITEM CODE
450	18	CBSBLD18F	79947	CBSBLD18C	91527
600	24	CBSBLD24F	79948	CBSBLD24C	91528
750	30	CBSBLD30F	79949	CBSBLD30C	91529
900	36	CBSBLD36F	79950	CBSBLD36C	91530
1050	42	CBSBLD42F	79951	CBSBLD42C	91531
1200	48	CBSBLD48F	79952	CBSBLD48C	91532
1350	54	CBSBLD54F	79953	CBSBLD54C	91533
1500	60	CBSBLD60F	79954	CBSBLD60C	91534
1800	72	CBSBLD72F	79955	CBSBLD72C	91535
2100	84	CBSBLD84F	79956	CBSBLD84C	91536
2400	96	CBSBLD96F	79957	CBSBLD96C	91537

Lead time: 2 weeks; shaded items 12–14 weeks



#### Replacement Parts

Replacement Parts			MILD STEEL				STAINLESS STEEL				
			FLAT BLADE		CURVED BLADE		FLAT BLADE		CURVED BLADE		
REF	DESCRIPTION	BELT WIDTH		ORDERING NUMBER	ITEM CODE	ORDERING NUMBER	ITEM CODE	ORDERING NUMBER	ITEM CODE	ORDERING NUMBER	ITEM CODE
		mm	in.								
1	CBS Pole (Ø73mm Diameter)	450	18	CBS450P	104413	CBS450P	104413	CBS450P-S/S	106569	CBS450P-S/S	106569
		600	24	CBS600P	104414	CBS600P	104414	CBS600P-S/S	106570	CBS600P-S/S	106570
		750	30	CBS750P	104415	CBS750P	104415	CBS750P-S/S	106571	CBS750P-S/S	106571
		900	36	CBS900P	104416	CBS900P	104416	CBS900P-S/S	106572	CBS900P-S/S	106572
		1050	42	CBS1050P	104417	CBS1050P	104417	CBS1050P-S/S	106573	CBS1050P-S/S	106573
		1200	48	CBS1200P	104418	CBS1200P	104418	CBS1200P-S/S	106574	CBS1200P-S/S	106574
		1350	54	CBS1350P	104419	CBS1350P	104419	CBS1350P-S/S	106575	CBS1350P-S/S	106575
	CBS HD Pole (Ø73mm Diameter Extra Heavy)	1500	60	CBSHD-1500P	84086	CBSHD-1500P	84086	CBSHD-1500P	84116	CBSHD-1500P	84116
		1800	72	CBSHD-1800P	84087	CBSHD-1800P	84087	CBSHD-1800P	84117	CBSHD-1800P	84117
		2100	84	CBSHD-2100P	84088	CBSHD-2100P	84088	CBSHD-2100P	84118	CBSHD-2100P	84118
		2400	96	CBSHD-2400P	84089	CBSHD-2400P	84089	CBSHD-2400P	84119	CBSHD-2400P	84119

			MILD STEEL		STAINLESS STEEL	
			SST XD TENSIONER			
REF	DESCRIPTION	SPRING COLOUR	ORDERING NUMBER	ITEM CODE	ORDERING NUMBER	ITEM CODE
-	SST XD Spring Tensioner Kit (includes 1 ea. 2-9)	White	SSTXD-W	111782	SSTXD-W-S/S	111424
		Silver	SSTXD-S	111783	SSTXD-S-S/S	111425
		Black	SSTXD-B	111784	SSTXD-B-S/S	111426
		Gold	SSTXD-G	111785	SSTXD-G-S/S	111427
2	SST XD Mounting Base		SSTXDM	GR660	SSTXDM-S/S	109827
3	Tension Spring - White (for belts 450-750 mm (18-30"))		STS-W	75846	STS-W-S/S	77630
	Tension Spring - Silver (for belts 750-1500 mm (30-60"))		STS-S	75843	STS-S-S/S	77631
	Tension Spring - Black (for belts 1800-2100 mm (72-84"))		STS-B	75844	STS-B-S/S	77632
	Tension Spring - Gold (for belts over 2100 mm (84"))		STS-G	78142	STS-G-S/S	79057
4	SST Adj Rod Kit		STAKHD	75892	STAKHD	75892
5	SST XD Torsion Pole Mount		SSTHDPM	77868	SSTHDPM2-S/S	77633
6	SST Bushing Kit - White/Silver		SSTBK-W	76636	SSTBK-W	76636
7	SST Bushing Kit - Black/Gold		SSTBK-B	76637	SSTBK-B	76637
8	SST Slide Guide Kit		STGK2	77635	STGK2	77635
9	SST Hat Channel Kit		SSTHK	79582	SSTHK-S/S	79586
			BOLT TENSIONER			
-	Bolt Tensioner Kits		CCMKHD	78920	CCMKHD-S/S	78922
10	Adjusting Bracket Kits		PAB	75513	PAB-S/S	75515
11	Cradle Clamp Top Strap		CCKHDS	79232	CCKHDS-S/S	79232
12	Pole Clamp Kit Left		CCKHDL	79225	CCKHDL-S/S	79227
12a	Pole Clamp Kit Right		CCKHDR	79229	CCKHDR-S/S	79231
13	Mounting Bracket - Left Hand		PMBL	75516	PMBL-S/S	75518
13a	Mounting Bracket - Right Hand		PMBR	75519	PMBR-S/S	75521

## Section 10 - Other Flexco Conveyor Products

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Flexco provides many conveyor products that help your conveyors to run more efficiently and safely. These components solve typical conveyor problems and improve productivity. Here is a quick overview on just a few of them:

### MMP Precleaner



- Extra cleaning power right on the head pulley
- A 250 mm (10") TuffShear™ blade provides increased blade tension on the belt to peel off abrasive materials
- The unique Visual Tension Check™ ensures optimal blade tensioning and quick, accurate retensioning
- Easy to install and simple to service

### DRX Impact Beds



- Exclusive Velocity Reduction Technology™ to better protect the belt
- Slide-Out Service™ gives direct access to all impact bars for change-out
- Impact bar supports for longer bar life
- 4 models to custom fit to the application

### MDWS DryWipe Secondary Cleaner



- Wipes the belt dry as final cleaner in system
- Automatic blade tensioning to the belt
- Easy, visual blade tension check
- Simple, one-pin blade replacement

### PT Max™ Belt Trainer



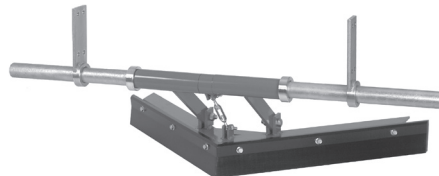
- Patented “pivot & tilt” design for superior training action
- Dual sensor rollers on each side to minimize belt damage
- Pivot point guaranteed not to freeze up
- Available for topside and return side belts

### Flexco Specialty Belt Cleaners



- “Limited space” cleaners for tight conveyor applications
- High Temp cleaners for severe, high heat applications
- A rubber fingered cleaner for chevron and raised rib belts
- Multiple cleaner styles in stainless steel for corrosive applications

### Belt Plows



- A belt cleaner for the tail pulley
- Exclusive blade design quickly spirals debris off the belt
- Economical and easy to service
- Available in vee or diagonal models



Visit [www.flexco.com](http://www.flexco.com) for other Flexco locations and products, or to find an authorised distributor.

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